

Appendix T

South Dakota Field Office Resource Management Plan

Areas of Critical Environmental Concern Nominations and Evaluation of the Relevance and Importance Criteria

Fossil Cycad ACEC Fort Meade Recreational Area ACEC SD Sage Grouse Protection Priority Areas ACEC

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| Table of Contents | Page |
|--|-------------|
| I. Executive Summary | 1133 |
| II. Introduction | 1133 |
| III. Requirements for ACEC Designation | 1133 |
| IV. Evaluation Process | 1134 |
| Fort Meade Recreational Area ACEC | 1137 |
| Fossil Cycad ACEC | 1139 |
| SD Sage Grouse Protection Priority Areas ACEC | 1143 |
| Maps | |
| Reference Map 1: Existing ACECs; Fort Meade and Fossil Cycad | 1145 |
| Reference Map 2: Greater Sage-Grouse Protection Priority Areas | 1146 |
| Resource Specialists' Recommendations for ACEC Consideration in the South Dakota RMP/EIS | 1147 |

I. Executive Summary

As part of the South Dakota Resource Management Plan (RMP) process, the RMP Interdisciplinary Team (IDT) analyzed whether areas analyzed met the relevance and importance criteria for nomination as Areas of Critical Environmental Concern (ACEC). The South Dakota Field Office (SDFO) analyzed three proposed areas (existing and externally proposed). Based on the analysis, the three areas met the relevance and importance criteria for nomination. The following table summarizes the findings.

| Table 1 – ACEC Determinations | | | |
|---|------------------------------|---|-------------------------------------|
| <i>Area Analyzed</i> | <i>Identified By:</i> | <i>Rationale</i> | <i>Carried Forward For Analysis</i> |
| Fort Meade Recreational Area | Internal (previous decision) | Protect unique historic and cultural values | Yes |
| Fossil Cycad | Internal (previous decision) | Protect paleontological values | Yes |
| SD Sage Grouse Protection Priority Areas | WildEarth Guardians | Protect Sage-Grouse | Yes |

The Fort Meade ACEC and Fossil Cycad ACEC will be nominated as potential ACECs and will be fully considered for designation and management in the RMP (BLM Manual 1613.2.21).

The SD Sage Grouse Protection Priority Areas nomination meets Relevance criteria 2 and 3 and Importance criterion 3. The sage grouse protection priority areas are not recommended by the interdisciplinary team to be designated as an ACEC. An ACEC designation for Greater Sage-Grouse Protection Priority Areas is evaluated in Alternative C of the South Dakota RMP/EIS.

II. Introduction

As part of the process for developing the South Dakota RMP, the BLM, South Dakota Field Office (SDFO) IDT reviewed all BLM-administered public lands in the planning area to determine whether any areas should be considered for designation as Areas of Critical Environmental Concern (ACECs). The public was also requested (through scoping and notification in the *Federal Register* Notice of Intent to identify areas they feel should be considered for management as an ACEC (or other special designation).

The Federal Land Policy and Management Act (FLPMA) requires that priority shall be given to the designation and protection of ACECs. Areas of Critical Environmental Concern are defined in the FLPMA Sec. 103[43 U.S.C 1702] (a) and in 43 C.F.R. 1601.0-5(a) as “areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.”

The following analysis and the resultant findings for ACEC relevance and importance criteria has been performed pursuant to FLPMA Sec. 202[43 U.S.C. 1712] (c)(3), 43 C.F.R. 1610-7-2 and BLM 1613 Manual.

III. Requirements for ACEC Designation

To be eligible for designation as an ACEC, an area must meet the relevance and importance criteria described in 43 Code of Federal Regulations (CFR) 1610.7-2 and BLM Manual 1613, *Areas of Critical Environmental Concern*, and need special management. Special management attention refers to “*management prescriptions developed during preparation of an RMP or amendment expressly to protect the important and relevant values of an area from the potential effects of*

actions permitted by the RMP, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP.” Thus, these are management measures that would not be necessary and prescribed if the relevant and important values were not present. A management prescription is considered to be special if it is unique to the area involved and includes terms and conditions specifically to protect the values occurring within the area. The determinations in this report deal strictly with the relevance and importance criteria, and not special management attention.

Relevance and importance are defined as follows:

Relevance: There shall be present a significant historic, cultural, or scenic value, a fish or wildlife resource or other natural system or process, or natural hazard.

Importance: The above described value, resource, system, process, or hazard shall have substantial significance and value, which generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to life or property.

Relevance

An area meets the relevance criterion if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans)
2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).
3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action might meet the relevance criteria if it is determined through the resource management planning process to have become part of a natural process.

Importance

An area meets the importance criterion if it meets one or more of the following:

1. Have more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of the Federal Land Policy and Management Act (FLPMA).
4. Have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety or to property.

IV. Evaluation Process

In compiling a list of areas to be analyzed in this report, the BLM ID teams followed the guidance set forth in BLM Manual 1613 and considered:

1. Existing ACECs
2. Areas recommended for ACEC consideration (external and internal nominations)
3. Areas identified through inventory and monitoring
4. Adjacent designations of other Federal and State agencies.

ACECs may be nominated by BLM staff, other agencies, or members of the public at any time. During the RMP revision scoping process, the BLM specifically solicited nominations from the public and other agencies. Information on special designations and ACECs was part of the scoping package and included in information made available at the public scoping meetings.

The BLM received no external nominations from the public (refer to Table I) as part of the formal outreach process. The BLM staff reviewed information from BLM inventories, data, and other reports to ensure that all potentially relevant and important values within the planning areas were considered, and proposed two areas for consideration.

The maps included in this Appendix, along with the ACEC evaluations, are for those areas that were found to meet the relevance and importance criteria. The boundaries of some of the proposed external nominations were modified to accurately represent where the values exist. The size and management prescriptions for each ACEC may vary by alternative to reflect a balance between the goals and objectives of the alternative and values being protected (BLM Manual 1613.2.22.B.1&2). The range of alternatives for the size of each ACEC being carried forward for further study is included in this Appendix.

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) NOMINATION EVALUATION

| | | | |
|-------|--|---------------|--|
| NAME: | Fort Meade Recreational Area ACEC | LOCATION: | Meade County, SD |
| SIZE: | 6,587 acres | NOMINATED BY: | BLM and Dakotas Resource Advisory Council |

RATIONALE: protect unique cultural and historic values

EVALUATED BY: SD RMP Interdisciplinary Team, 2010

In 1996, the Fort Meade Recreational Area was designated as an ACEC through a Resource Plan Amendment (BLM 1996) because of its significant historic and cultural values. This report documents the re-evaluation of the ACEC status for the Fort Meade Recreational Area.

Background and History of the Fort Meade Area

In 1996, the BLM made a decision to manage Fort Meade as an ACEC (BLM 1996 Decision Record for the Fort Meade Recreation ACEC BLM). The Decision Record noted that “the Fort Meade Recreational Area contains historic and cultural values that are regionally significant, irreplaceable, unique and vulnerable to vandalism. Special Management is needed to protect cultural and historic values from vandalism and adverse change.”

The early history of the area, and its strategic proximity to the Black Hills, may be the most significant feature of the area. Its location between Bear Butte (sacred mountain of the American Indians) and the Black Hills was not only of great importance to the American Indian people but later played a significant role in the settlement of South Dakota. A portion of the area is listed on the National Register of Historic Places. (MAP)

An early Oglala campsite on Bear Butte Creek, a Ute campsite and burial ground and several lithic scatter sites consisting of local raw material (chert and chalcedony), flakes and tools, give evidence to Native American use. Continuing oral tradition also indicates the importance of the area (particularly Bear Butte, but surrounding areas as well) to Native American culture.

Fort George W. Meade was established in 1878 as a cavalry fort to protect the new settlements in the northern Black Hills, especially the nearby gold mining area around Deadwood. Several stage and freighting routes passed through Fort Meade enroute to Deadwood. The ruts of several historic trails, used for transport of passengers and freight, are still visible in places.

For most of the past 120 years, there has been some military presence at Fort Meade. Many cavalry and infantry units were stationed here, including the 7th Cavalry after the Battle of the Little Bighorn, the Buffalo soldiers of the 10th Cavalry, and the 4th Cavalry which saw the transition from horses to mechanization. Fort Meade still serves as a training site for the South Dakota National Guard and an Army National Guard Officer Candidate School.

A variety of structures and features dating as far back as the 1870s are present. Many of these remnants of early cavalry life remain in good condition. Some examples include Curley Grime's grave, stone cavalry jumps, rock carvings, Fort Meade Post Cemetery, Ute Indian campsite, and Camp Fechner--an old Civilian Conservation Corp camp and World War II POW camp.

The Fort Meade Recreational area is located next to the city of Sturgis and receives high levels of recreational use. Since 1996 growth of the city and development of adjacent land has increased. Recreational use has also increased since 1996. A wide variety of recreational uses occur.

A portion of the areas surrounding the present-day Veterans Administration medical center is listed on the National Register of Historic Places. The Historic District consists of 3,180 acres, 2,180 acres are administered by BLM and 1,000 acres administered by the Veterans Administration. Any undertaking proposed by the BLM within this area requires Section 106 and Determination of Effect consultation with the State Historic Preservation Office (SHPO) and Advisory Council on Historic Preservation (ACHP). The remaining 3,380 acres of the FMRA outside of the Historic District is also potentially eligible for the National Register, also requiring extensive SHPO and ACHP consultation.

RELEVANCE (must contain one or more of the following):

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).
2. A fish and wildlife resource including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity.
3. A natural process or system including but not limited to endangered, sensitive or threatened plant species; rare endemic or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features.
4. Natural hazards including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs.

The Fort Meade Recreational Area meets Relevance criterion 1.

Significant historic, cultural, and scenic values are present including rare and sensitive archeological resources and religious or cultural resources important to Native Americans. The Fort Meade Recreational Area contains a wide variety of cultural resources that are important to providing an understanding of Native American use, early settlement of the Black Hills area, and military history.

IMPORTANCE (characterized by one or more of the following):

1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of the Federal Land Management Policy Act.
4. Has qualities, which warrant highlighting to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety to property.

The Fort Meade Recreational Area meets Importance Criterion 1.

The Fort Meade Recreational Area contains numerous significant historic, cultural, qualities which provide special worth, distinction, and meaning. The Fort Meade Recreational Area contains features associated with a Military Fort, Native American use, and early settlement of South Dakota. The area is known locally and regionally as an important source of these features associated with these activities. Many of these sites have interpretative signs, while other are not interpreted because of sensitivity to damage or vandalism.

The Fort Meade Recreational Area meets Importance Criterion 2.

The Fort Meade Recreational Area is easily accessed and experiences high levels of visitor use. The numerous cultural and historic features that are present are unique and vulnerable to adverse change. The close proximity of the area to Bear Butte contributes to the cultural and scenic values of the area.

The Fort Meade Recreational Area is a transition zone between the pine forests of the Black Hills and the surrounding prairies. Currently the northern edge of the Black Hills is experiencing rapid growth and development of lands for homes and subdivisions. The abundance of undeveloped lands along the northern edge of the Black Hills is likely to decrease as a result of the development of private land and construction of roads and other infrastructure.

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) NOMINATION EVALUATIONNAME: **Fossil Cycad ACEC**LOCATION: T7S, R3E, Sec. 35, SW¼NE¼,
SE¼, S½SW¼, NE¼SW¼;
Fall River County, South Dakota

SIZE: 313* acres

NOMINATED BY: BLM and Dakotas Resource
Advisory Council

RATIONALE: protect unique paleontological values

EVALUATED BY: SD RMP Interdisciplinary Team, 2010

*Current GIS acres, Public Land Survey area is 320 acres.

Background and History of the Fossil Cycad Area

The Fossil Cycad Area was designated as an ACEC through a Resource Plan Amendment (BLM 1999) because of its unique paleontological values.

This report documents the re-evaluation of the ACEC status for the Fossil Cycad (hereafter referred to as Fossil Cycad) ACEC.



Pseudotaxus lanei-type Cycadale with a striking similarity to the modern *Encephalartos*, Middle Jurassic.

John Sibbick

The Fossil Cycad contained a rare fossilized plant species that is known in only 3 other places on earth. The fossils give indications as to the development of flowering plants. Described in 1893, the value of the find resulted in National Monument status for the Fossil Cycad in 1922.

The lack of visible fossil material led to the deauthorization of the Monument in 1957. The management of the area was turned over to the BLM. In 1980, construction within a 300 foot highway right-of-way occurred within the boundaries

of the revoked monument. During construction activities, fossil cycad material was unearthed. Though no visible fossil material remains, it is likely there continues to be a fossil remnant, as was shown in the 1980 highway construction. The Fossil Cycad Area was designated as an ACEC through a Resource Plan Amendment (BLM 1999) in order to protect the rare and valuable potential for remaining fossil material.

The entire area is in the same Geological Group/Formations:

Inyan Kara Group (Lower Cretaceous) - Includes the Fall River and Lakota Formations.

Fall River Formation (Lower Cretaceous) - Variegated brown, red, and gray to purple, calcareous, well-sorted, fine-grained sandstone, siltstone, and shale containing mica. Thickness 100-200 ft. (30-61 m).

Lakota Formation (Lower Cretaceous) - Yellow, brown, red-brown, and gray to black claystone, silty pebble conglomerate, and massive to thin-bedded, cross-bedded sandstone. Locally interbedded with freshwater limestone and bituminous coal beds. Thickness 35-500 ft. (11-152 m).

Current management actions and activities on Fossil Cycad ACEC:

- VRM is Class IV.
- Air Quality is Class II.
- Managed with conditional fire suppression.
- Timber and wood product sales not allowed.
- Rights-of-way are not allowed.
- Livestock grazing is allowed, annual grazing occurs and the parcel is fenced on the perimeter.
- Surface and mineral rights are retained in public ownership.
- Locatable minerals are withdrawn from entry (320 public mineral acres, discretionary closure).
- Geophysical exploration for oil and gas is not allowed.
- Area closed to oil and gas leasing.
- Off-road vehicle use is limited to designated roads and trails.
- Vehicle travel off designated roads and trails is allowed only for authorized or permitted uses such as medical and other emergencies, and livestock management practices.
- Noncommercial collection of common invertebrate and plant fossils is not allowed.
- Area is not signed or advertised based on past vandalism.
- State Highway 18 bisects the ACEC parcel.

The BLM discussed the nomination of the area to the Dakota Resource Advisory Council (RAC) on September 2, 2009. The RAC moved that Fossil Cycad Area be carried forward with the ACEC designation. The recommendation carried unanimously.

In order to be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet both the relevance and importance criteria:

RELEVANCE (must contain one or more of the following):

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).
2. A fish and wildlife resource including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity.
3. A natural process or system including but not limited to endangered, sensitive or threatened plant species; rare endemic or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features.
4. Natural hazards including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs.

The Fossil Cycad Area meets Relevance criterion 3.

The natural process or system of prehistoric conditions and adaptations is evidenced in the fossils found, and others as yet undiscovered, in the area. The rare fossilized plant species, found only in three other places on earth, has contributed significantly to the understanding of geologic time, life and earth history. It may lead to improved knowledge about the paleoenvironment during the Cretaceous Period, evolutionary processes, and the development of flowering plant species and conifers.

IMPORTANCE (characterized by one or more of the following):

1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of the Federal Land Management Policy Act.
4. Has qualities, which warrant highlighting to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety to property.

The Fossil Cycad Area meets Importance criteria 1 and 2.

The Fossil Cycad Area possessed and likely still possesses more than locally significant qualities, and geologic values that are fragile, rare, irreplaceable and unique. The rarity of the fossil resource and its impact on understanding of evolutionary development is significant on a larger than local scale. The damage to the resource in the past underscores the vulnerability of the area. Interpretation is not advised due to the likelihood of vandalism and/or unauthorized collection.

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) NOMINATION EVALUATION

NAME: **SD Sage Grouse Protection Priority Areas** LOCATION: Butte and Harding Counties, SD

SIZE: 96,379 acres NOMINATED BY: WildEarth Guardians

RATIONALE: protect Greater Sage-Grouse and sage-grouse habitat
 EVALUATED BY: SD RMP Interdisciplinary Team, 2012

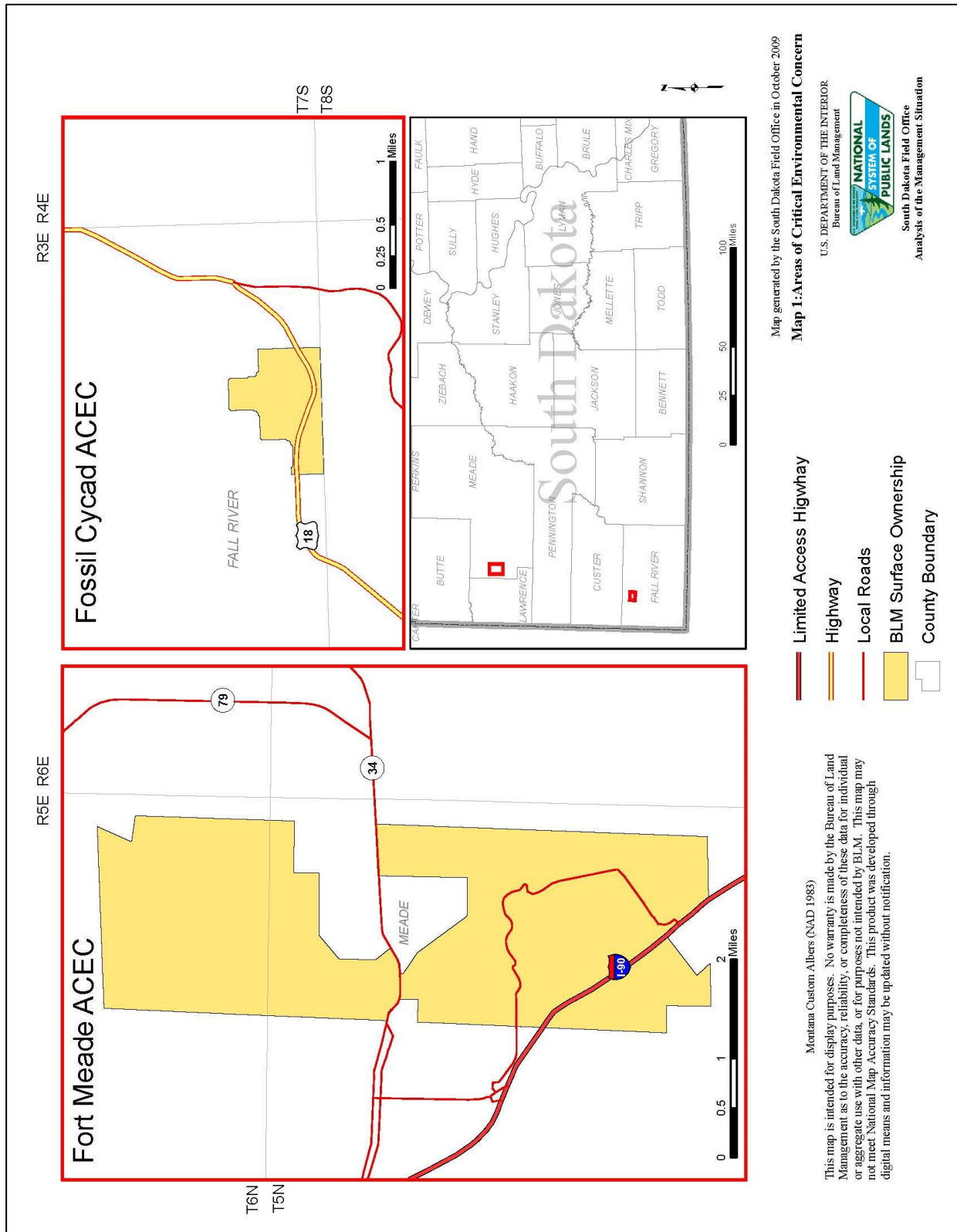
In response to the “Notice of Intent to Prepare Environmental Impact Statements To Incorporate Greater Sage-Grouse Conservation Measures Into Land Use Plans and Land Management Plans” (76 Fed. Reg. 77008), the BLM received an ACEC nomination for Greater Sage-Grouse from WildEarth Guardians that will be considered in this planning process.

This report presents the completed evaluation form for the nominated ACEC in the planning area as shown in the table below. An ACEC that meets both Relevance and Importance criteria is included in Alternative C and analyzed in the SD Draft RMP/EIS. Reference Map 2 (identified as Map 2-5, Greater Sage-Grouse Protection Priority Areas (PPAs) ACEC, Alternative C) shows the locations of the nominated ACEC.

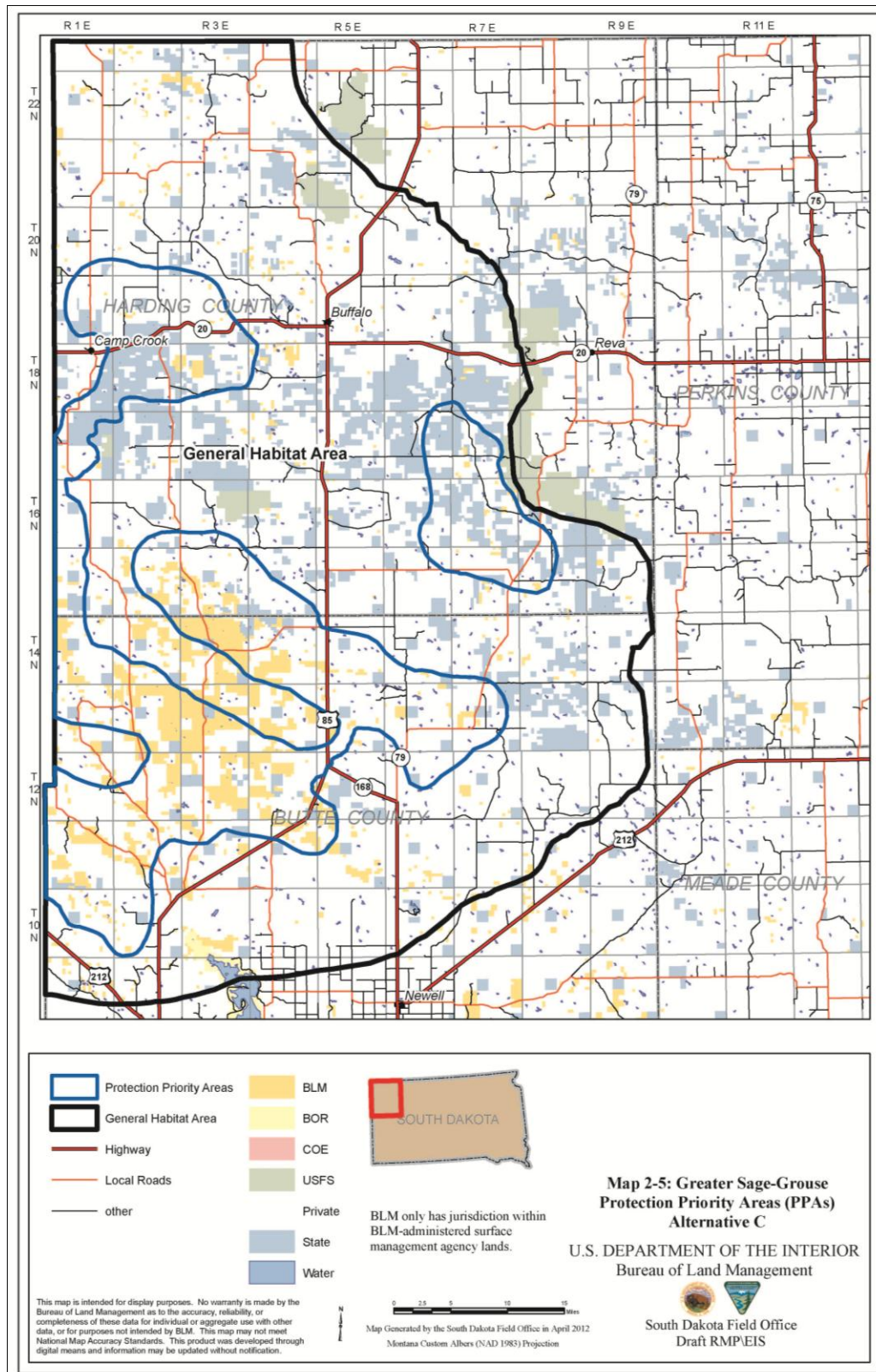
| Greater Sage-Grouse Relevance and Importance Evaluation | | |
|---|---------------|---|
| Area Considered: Butte and Harding Counties South Dakota. | | |
| General Location: Central and Northern Butte County, Southern Harding County | | |
| General Description: Protection priority habitat for Greater Sage-Grouse | | |
| Acreage: 96,379 BLM-administered surface acres and 289,899 BLM-administered mineral estate acres | | |
| Values Considered: Greater Sage-Grouse habitat | | |
| <i>Relevance Value</i> | <i>Yes/No</i> | <i>Rationale for Determination</i> |
| 1. A significant historic, cultural, or scenic value | No | No significant historic or cultural values are known. Scenic values are moderate, but are similar to those of many other areas in the planning area. |
| 2. A fish and wildlife resource | Yes | The nomination meets the relevance criterion for wildlife resources. The nominated area provides habitat for Greater Sage-Grouse (96,379 acres of BLM administered surface estate) a BLM sensitive species. South Dakota Game, Fish and Parks has reviewed and concurred with BLM’s approach to designate this area as a core area. |
| 3. A natural process or system | Yes | The nomination also meets the criterion for a natural system or process because of the condition of the sagebrush habitat in the nomination area. |
| 4. Natural hazards | No | No natural hazards are known. |

| <i>Importance Value</i> | <i>Yes/No</i> | <i>Rationale for Determination</i> |
|--|---------------|--|
| 1. More than locally significant qualities | No | <p>Although the area contains habitat for Greater Sage-Grouse conservation as noted in the nomination material, the area is not significantly unique or more important than other habitat areas in this region.</p> <p>Greater Sage-Grouse are distributed throughout the western United States. The portion of the distribution in Montana, Wyoming, North Dakota, South Dakota, Alberta, and Saskatchewan are designated as Management Zone I (Stiver, et al. 2006). Management zones are delineations of Greater Sage-Grouse populations and sub-populations within floristic zones with similar management issues. Within Management Zone I in the PPA shown in map 2-5 identify sage-grouse PPAs in South Dakota that were developed by BLM and reviewed by South Dakota Game Fish and Parks and US FWS Ecological Service in Pierre, SD.</p> <p>While all of these areas are considered important to Greater Sage-Grouse conservation, the areas are dispersed throughout the region and are not significantly unique to a specific region or planning unit. In addition, Greater Sage-Grouse habitat in these core areas is owned by a number of different entities and habitat on BLM lands is not distinct from habitat managed by other ownership.</p> |
| 2. Special qualities | No | The area is not particularly fragile or sensitive to change as compared to other sites in Montana. |
| 3. Warrants national priority/FLPMA protection | Yes | Satisfies national priority concerns. |
| 4. Safety/public welfare concerns | No | No safety or public welfare concerns are known. |
| 5. Poses a significant threat | No | No significant threats. |

Reference Map 1 Existing ACECs; Fort Meade and Fossil Cycad



Reference Map 2
Greater Sage-Grouse Protection Priority Areas highlighted as blue polygons from RMP Map 2-5



RESOURCE SPECIALISTS' RECOMMENDATIONS FOR ACEC CONSIDERATION IN THE SOUTH DAKOTA RMP/EIS

The Fort Meade Recreational Area ACEC meets Relevance criterion 1 and Importance criteria 1 and 2. It is recommended that the Fort Meade Recreational Area ACEC be retained as an ACEC.

The Fossil Cycad ACEC meets Relevance criterion 3 and Importance criteria 1 and 2. It is the specialists' (interdisciplinary team) recommendation that Fossil Cycad be retained as a designated ACEC.

The SD Sage Grouse Protection Priority Areas nomination meets Relevance criteria 2 and 3 and Importance criterion 3. The sage grouse protection priority areas are not recommended by the interdisciplinary team to be designated as an ACEC. An ACEC designation for Greater Sage-Grouse Protection Priority Areas is evaluated in Alternative C of the South Dakota RMP/EIS.

Field Manager

Date

